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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Birch Stewart Kolasch & Birch LLP
PO BOX 747
Falls Church, VA 22040-0747

EXAMINER

SUKHAPHADHANA, CHRISTOPHER T

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 09/02/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/510,190

Applicant(s)

ITO, WATARU

Examiner

Christopher T. Sukhaphadhana

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Amendment filed 21 Jul 2003 has been entered in full.
2. Based on Applicant's amendments, the 35 USC 112, first paragraph, rejection presented in prior Office Action, paper no 6, paragraph 11, sub-paragraphs 2 and 3, and the 35 USC 112, second paragraph, rejections are withdrawn.

Drawings

3. The drawings were received on 21 Jul 2003. These drawings are acceptable.

Response to Arguments

4. Applicant's arguments, see Amendment B, paper no 9, paragraph bridging pages 8-9 and the first full paragraph of page 9, filed 21 Jul 2003, with respect to the 35 USC 112, first paragraph, rejection presented in prior Office Action, paper no 6, paragraph 11, sub-paragraph 4, have been fully considered and are persuasive. The 35 USC 112, first paragraph, rejection of the claims have been withdrawn.
5. Applicant's arguments filed 21 Jul 2003 with respect to the prior art rejections have been fully considered but they are not persuasive.
6. In remarks, Applicant argued in substance that:
 - a. **Chen does not adjust at least one of "density of [a] face area based on density information of an area surrounding the face area so as to compensate for an effect of density of the area surrounding the face area on visual perception of the density**

of the face area; and color of the face area based on color information of the area surrounding the face area so as to compensate for an effect of color of the area surrounding the face area on visual perception of the color of the face area”.

Examiner disagrees. Chen illustrates this limitation in the middle-bottom to bottom-left of Fig 16. Note how in the middle-bottom, the image with the blue background and the bluish face go through inverse blending to recover the original face color, as indicated in the bottom-left. More specifically, the “effect of color of the area surrounding the face area on visual perception of the color of the face area” is purposefully added in the C_0 multiplier to the left of the middle-most ‘blue’ picture of Fig 16 as described in col 14, lines 12-53. During the inverse blending step mentioned above, Chen’s invention removes or “compensates for” that above effect by restoring the face image where the face image may be blended and appear bluish-pink (paragraph bridging col 14-15). Thus, as described in col 15, lines 4-34, the inverse blending adjusts the color of the face area based on the color information of the area surrounding the face area (C_0) so as to compensate for an effect of color of the area surrounding the face area on visual perception of the color of the face area as claimed in claim 1 and similarly in claims 2-4 and 9.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2625

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 1-5 and 7-9** are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (U.S. Patent 6,141,442).

9. In regards to **claim 1**, Chen discloses an image processing method (Fig 15) comprising the steps of extracting a face area of a figure (ref 1501 and 1502, Fig 15 and col 12, lines 62-66) from an image and adjusting a color of the face area (Fig 16 and 17 and col 15, lines 4-14) based on color information of an area surrounding the face area so as to compensate for an effect of color of the area surrounding the face area on visual perception of the color of the face area.

Furthermore, Chen illustrates this adjusting limitation in the middle-bottom to bottom-left of Fig 16. Note how in the middle-bottom, the image with the blue background and the bluish face go through inverse blending to recover the original face color, as indicated in the bottom-left. More specifically, the “effect of color of the area surrounding the face area on visual perception of the color of the face area” is purposefully added in the C_0 multiplier to the left of the middle-most ‘blue’ picture of Fig 16 as described in col 14, lines 12-53. During the inverse blending step mentioned above, Chen’s invention removes or “compensates for” that above effect by restoring the face image where the face image may be blended and appear bluish-pink (paragraph bridging col 14-15). Thus, as described in col 15, lines 4-34, the inverse blending adjusts the color of the face area based on the color information of the area surrounding the face area (C_0) so as to compensate for an effect of color of the area surrounding the face area on visual perception of the color of the face area.

10. In regards to **claims 2-4 and 9**, all the elements set forth in this claim have been addressed in the argument of claim 1.

11. In regards to **claim 5**, Chen further discloses designating an area surrounding the face area as a concentric area excluding the face area (see ref no 1502, Fig 15). Note that the rectangle containing the face area R_i and the rectangle representing the colored area C_0 share the same center (**con·cen·tric** 1: having a common center, Merriam-Webster's Collegiate Dictionary, 10th ed © 1993).

12. In regards to **claim 7**, Chen further discloses in col 7, line 50 – col 8, line 11, dividing the surrounding area into sub areas and calculating an average pixel density.

13. In regards to **claim 8**, Chen further discloses in col 13, lines 18-62, calculating color information of the area surrounding the face.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen as applied to claim 1 above.

16. In regards to **claim 6**, Chen does not expressly disclose determining the area surrounding the face area such that the area surrounding the face area has a radius of 3 times a radius of the face area.

However, Chen demonstrates in ref 1502, Fig 15, of an area surrounding the face area has having an area approximately 2 times the area of the face area.

It would have been obvious to one of ordinary skill in the art at the time of the invention to determine the area surrounding the face area such that the area surrounding the face area has a radius of 3 times a radius of the face area. Applicant has not disclosed that an area with radius 3 times the radius of the face area provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with an area surrounding the face area having an area approximately 2 times the area of the face area because Applicant's invention only needs to derive values from an non-face area independent of the actual dimensions.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2625

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher T. Sukhaphadhana whose telephone number is 703-306-4148. The examiner can normally be reached on 9a-4p M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

CTS

CTS


TIMOTHY M. JOHNSON
PRIMARY EXAMINER